# Domino – Modelling details

SESAR JOINT UNDERTAKING

Founding Members

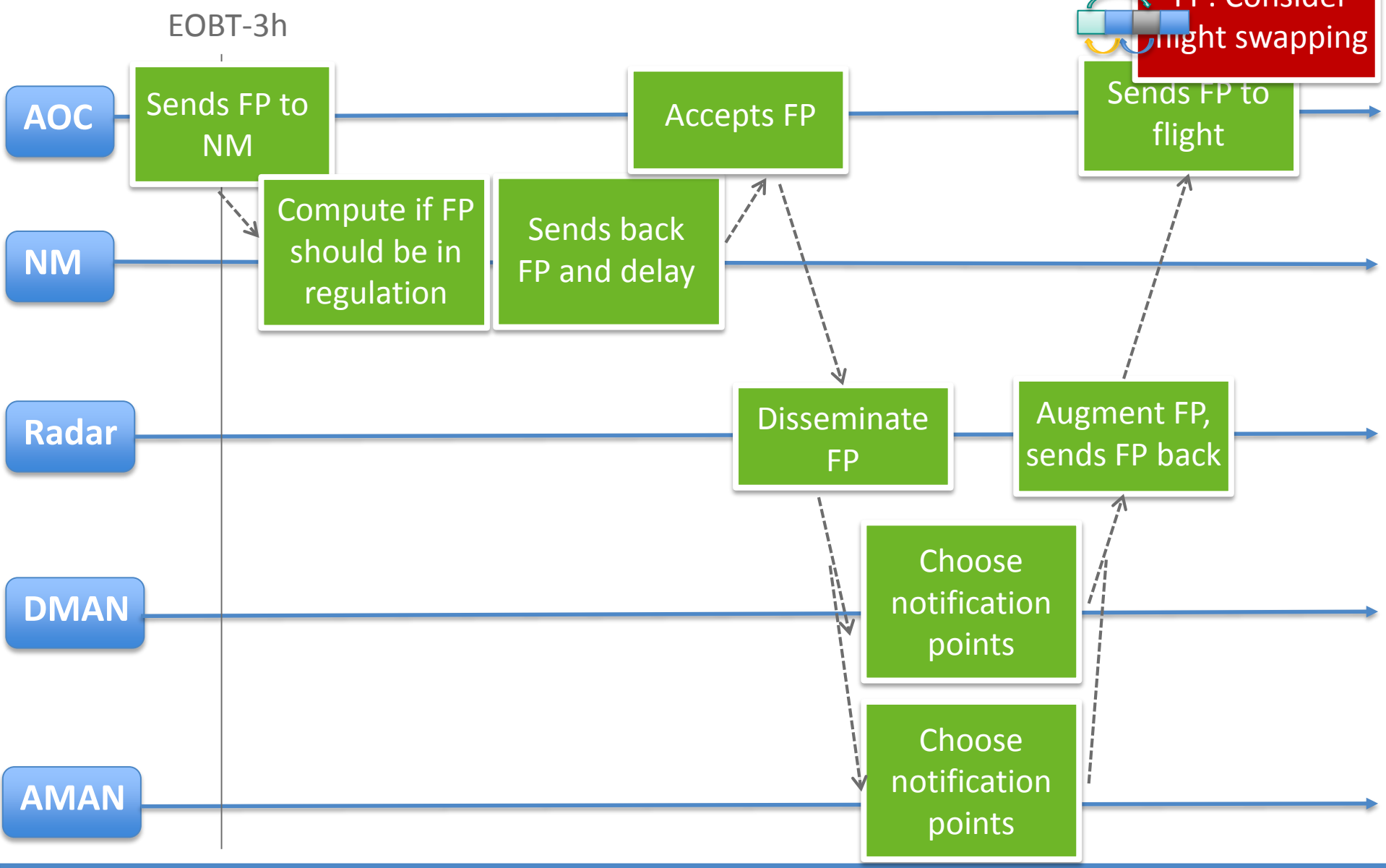
EUROPEAN UNION EUROCONTROL

# Role of the agents

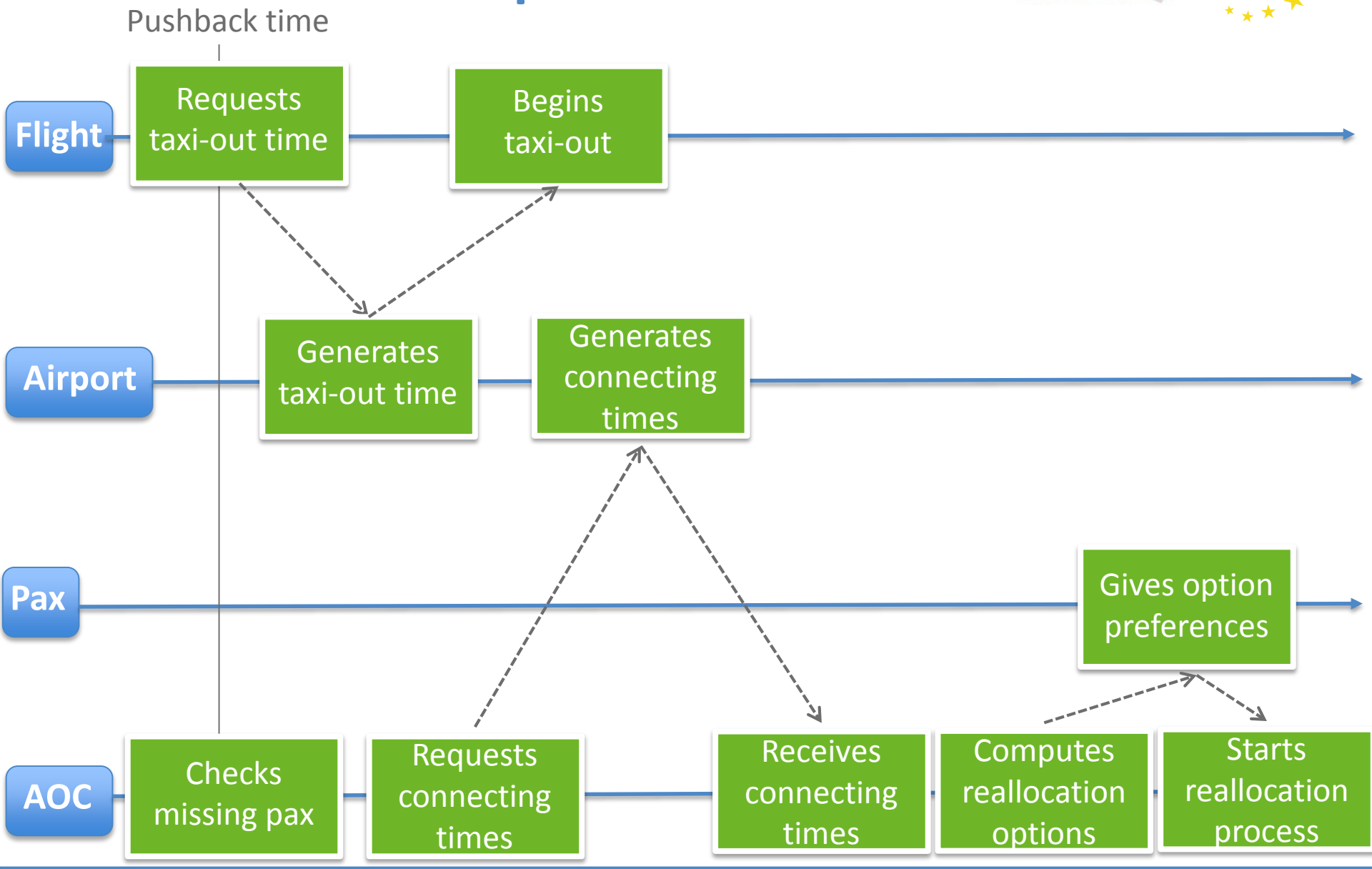
- Reminder: agents are reacting to events or to messages from other agents
- Complete list of agents:
  - Ground airport
  - DMAN
  - AMAN
  - Flight
  - AOC
  - Radar
  - Network manager
  - Passenger
  - Slot swapper (for flight prioritisation)

Who does what and when?

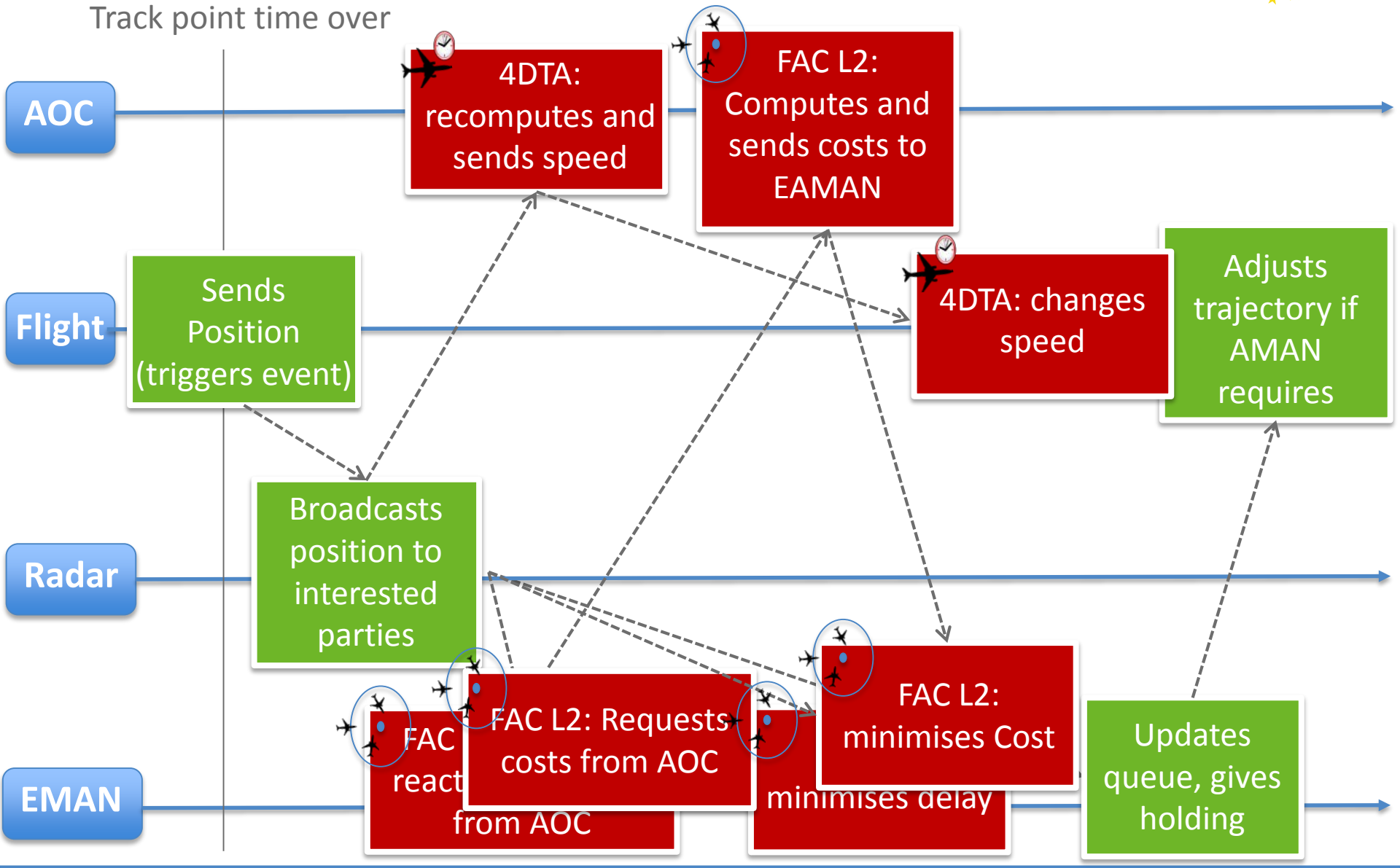
# First exercise: flight plan submission



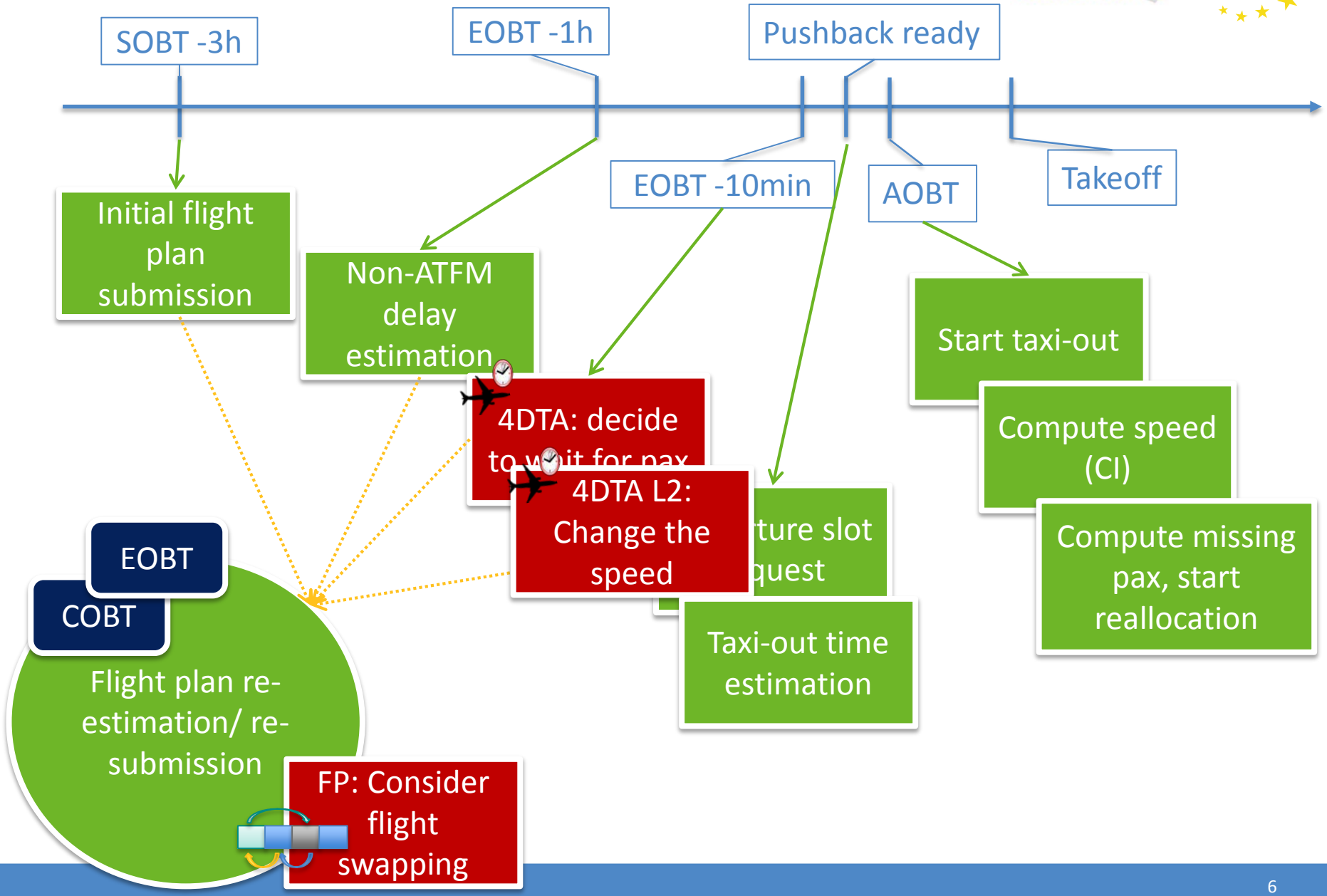
# Second exercise: pushback



# Third exercise: operate trajectory



# Information and time scale



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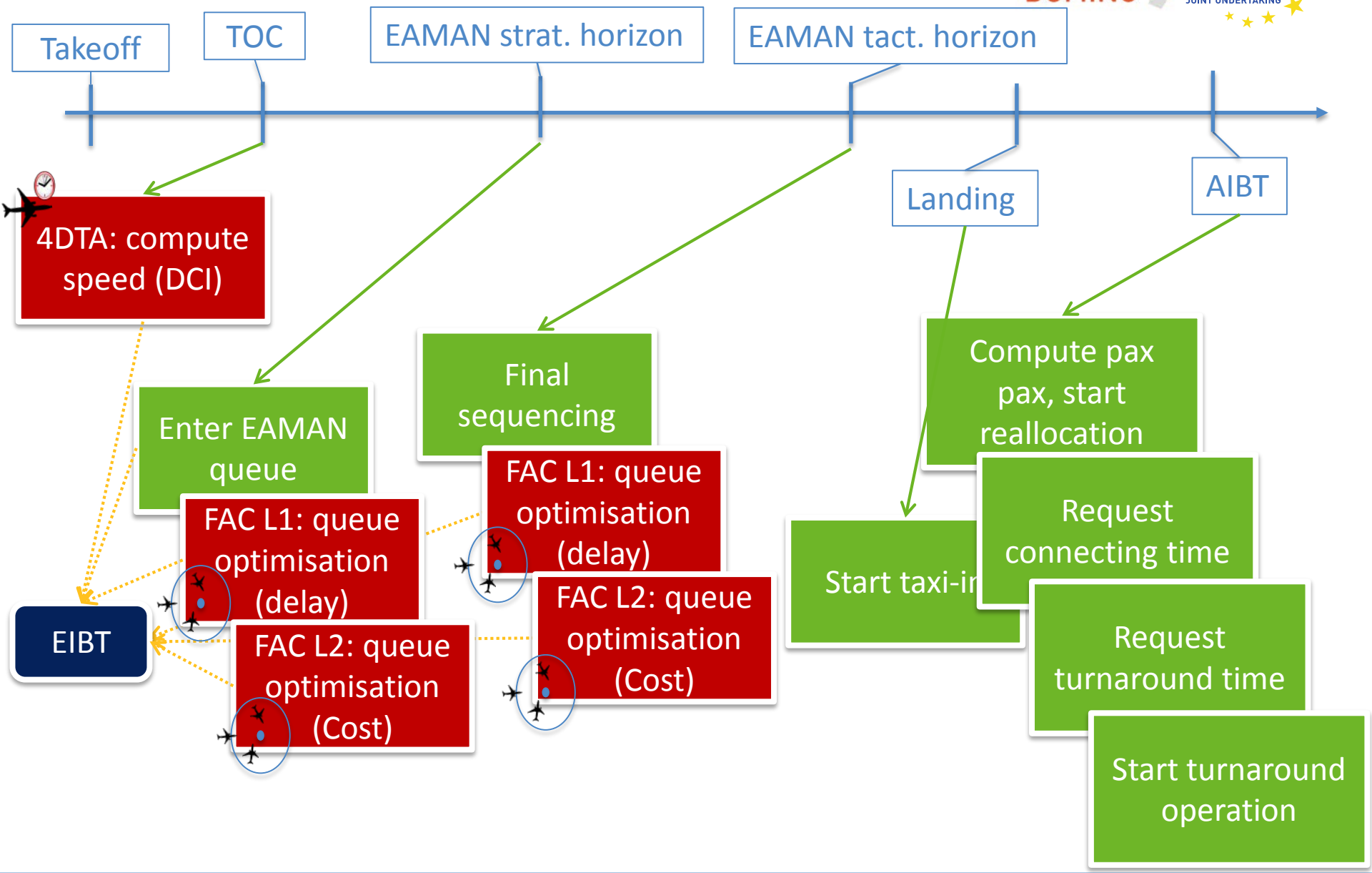
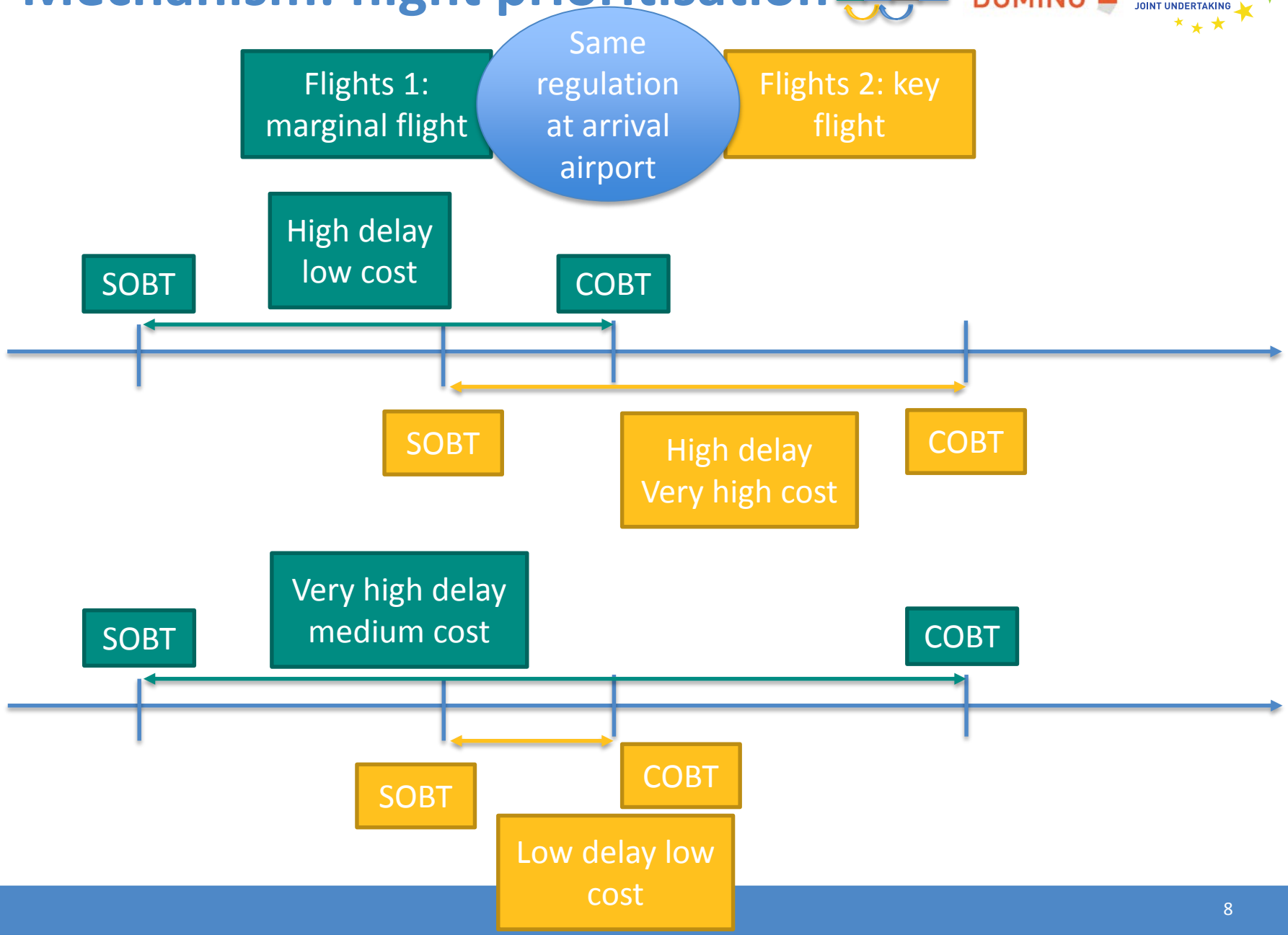
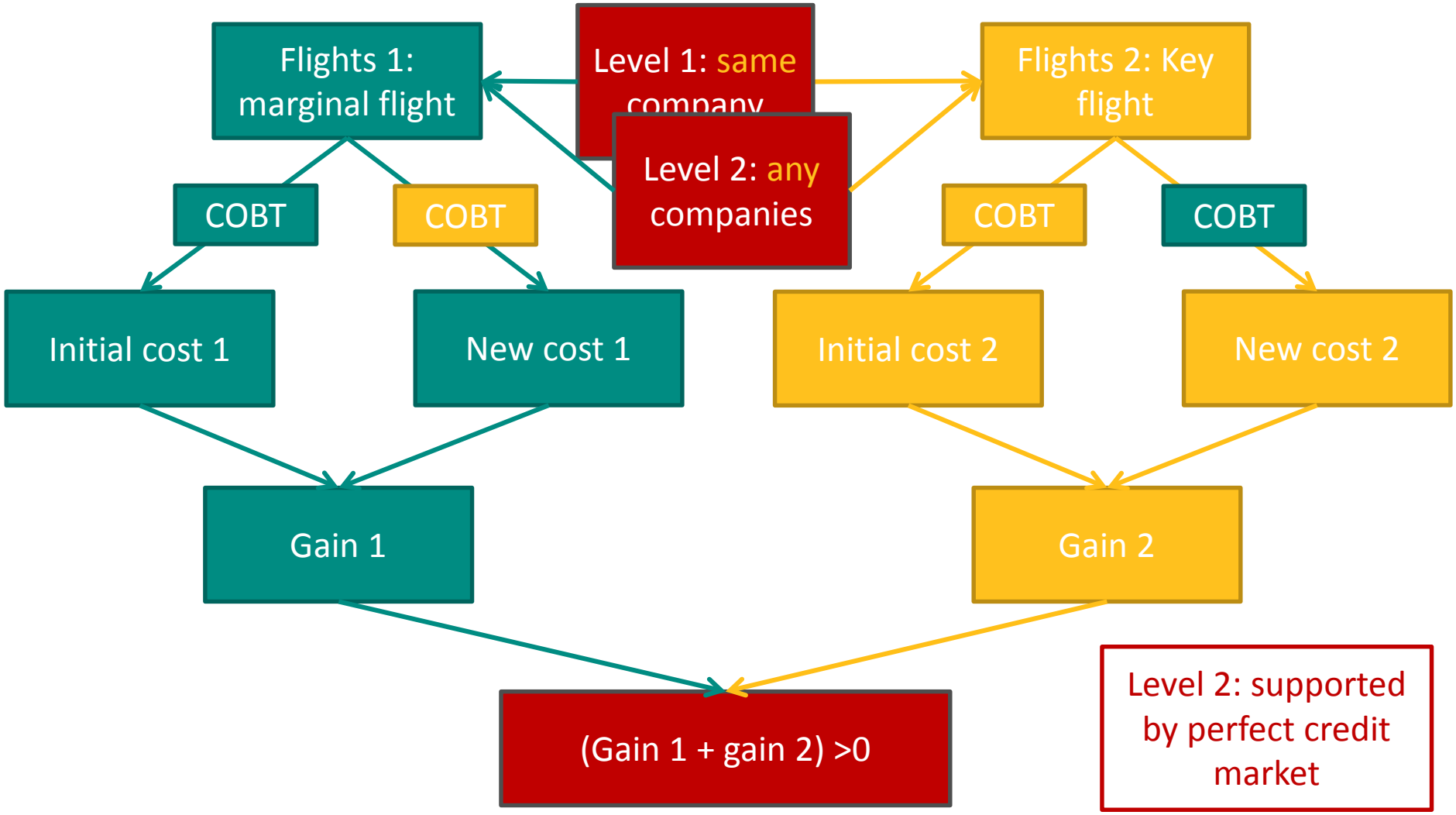


# Mechanism: flight prioritisation



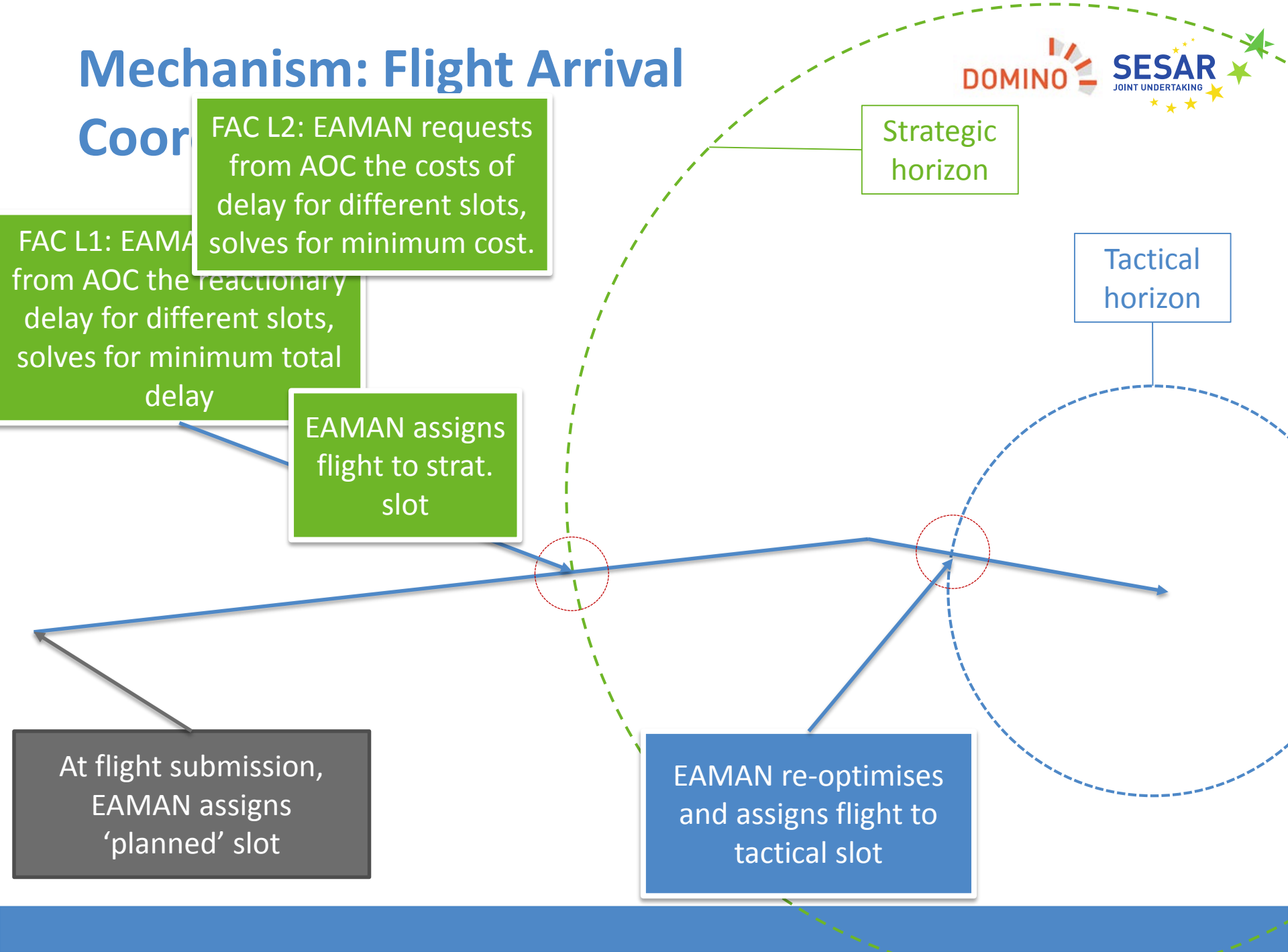
# Mechanism: flight prioritisation

## When to do the swap?




Level 2: supported by perfect credit market

# Mechanism: Flight Arrival Coor

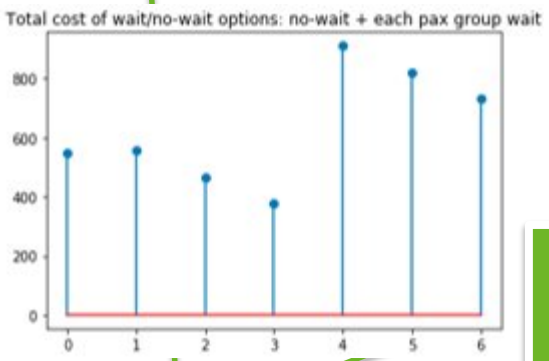


# Mechanism: 4D traj. adjustments

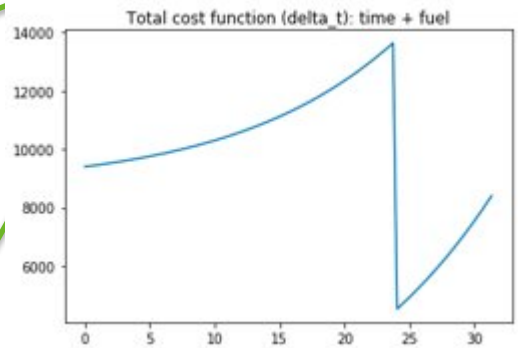
4DTA: AOC considers missing passengers and decides whether to wait for them

Level 1: independent decisions
Level2: joint decisions

4DTA: AOC computes whether the flight should speed up

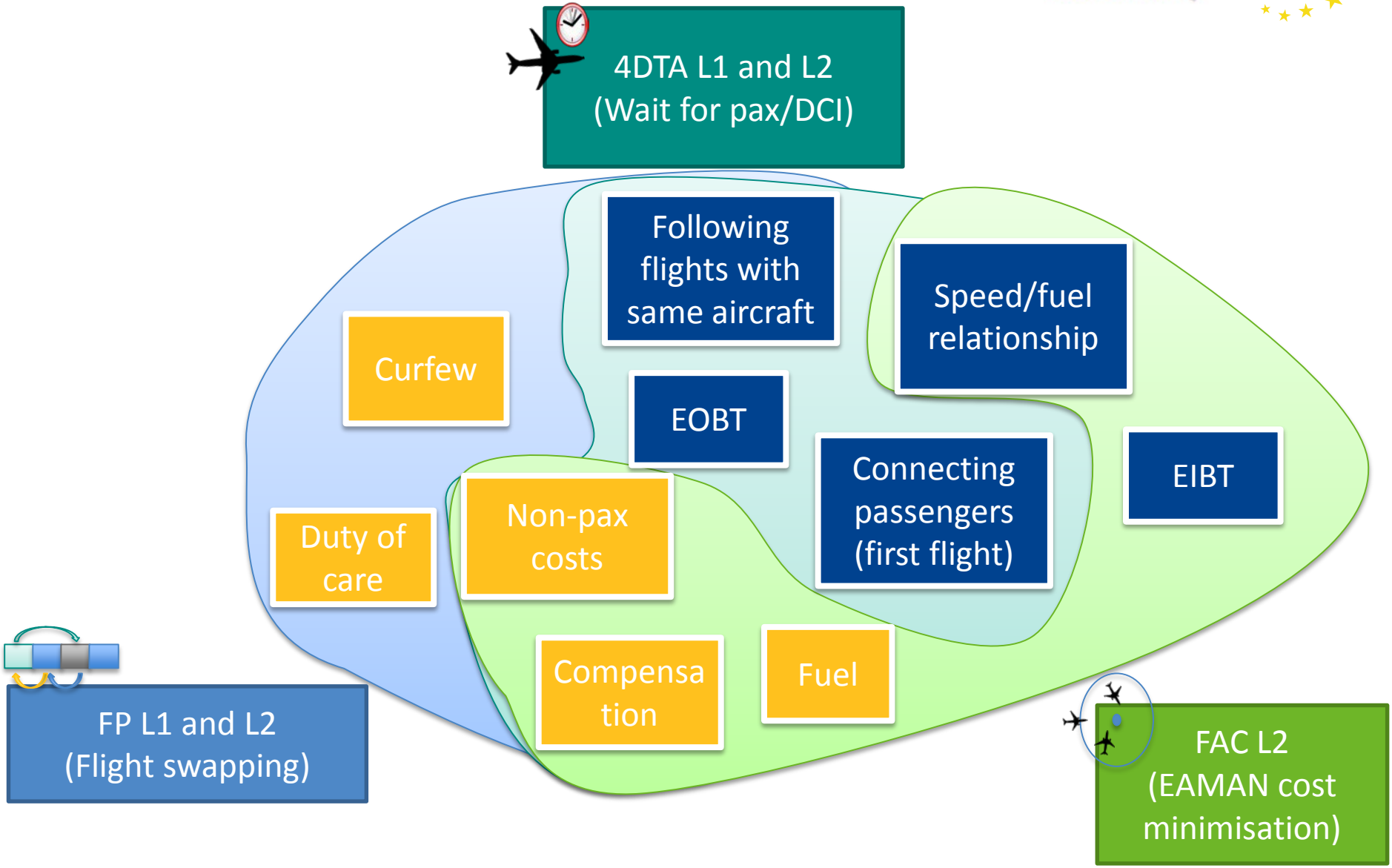



Level 0 : CI with rule of thumb




EOBT -10min

AOBT

TOC

# Costs and decisions